

FUJO 18.191
09/754,802In the Claims:

Please amend the claims as follows:

1. (Currently Amended) A path setup device for setting up a label switched path in a label switching network including a plurality of routers, comprising:

a decision device, when a label request is received, deciding whether there exists a label switched path which has already been set up and which corresponds to a path requested in the label request;

a label allocation device, when the set-up label switched path exists, allocating another label, for the label request, which is the same as a label of the set-up label switched path;

a different-label allocation device, when a request to release ~~the other~~ another label is received from a router notified of said ~~other~~ another label, performing processing for allocating a label different from the label of the set-up label switched path for a the label request requesting a path corresponding to the set-up label switched path; and

a path learning device automatically learning a ~~set-up label switched path~~ that cannot be allocated ~~another label which is the same as a label for the set-up label switched path with a same label~~ and prohibiting allocation of ~~such another said same~~ label for the learned path, ~~and wherein~~

when a request to release ~~another said same~~ label has been received, the different-label allocation device notifies the path learning device of the path and the path learning device learns the notified path as a path that cannot be allocated ~~another said same~~ label.

2. (Previously Presented) The path setup device according to claim 1, wherein the decision device decides that the path corresponding to the label request is the same as the set-up label switched path when the path corresponding to the label request and the set-up label switched path

FUJO 18.191
09/754,802

coincide with each other in a combination of an ingress router and an egress router and routers located between the ingress router and the egress router.

3. (Previously Presented) The path setup device according to claim 1, further comprising a label reallocation device performing label reallocation processing, and wherein the label allocation device allocates other labels which are the same for a plurality of forwarding equivalence classes, and when a change has occurred in the label switching network for one of the forwarding equivalence classes, the label reallocation device temporarily releases a label allocated to a path between an ingress router and an egress router and performs processing for re-performing label allocation between the ingress router and the egress router.

Claims 4-5 (cancelled)

6. (Currently Amended) A computer-readable recording medium recorded with a program for setting up a label switched path in a label switching network including a plurality of routers, the program causing a computer to perform:

when a label request is received, deciding whether there exists ~~a~~the label switched path which has already been set up and which corresponds to a path requested in the label request;

when the set-up label switched path exists, allocating another label, for the label request, which is the same as a label of the set-up label switched path;

when a request to release ~~the other~~another label is received from a router notified of said other label, performing processing for allocating a label different from the label of the set-up label switched path for the label request having a path corresponding to the set-up label switched path; and

Page 3 of 13

BEST AVAILABLE COPY

FUJO 18.191
09/754,802

automatically learning a ~~set-up label switched path~~ that cannot be allocated ~~another with a~~
~~same label which is the same as a label for the set-up label switched path~~ and prohibiting
allocation of ~~such another label~~ for the learned path, and when a request to release the ~~other said~~
~~same label~~ has been received, ~~notifying the path and learning the notified learned path~~ as a path
that cannot be allocated the ~~said~~ same label.

7. (Currently Amended) A path setup method for setting up a label switched path in a label
switching network including a plurality of routers, comprising:

when a label request is received, deciding whether there exists ~~a the~~ label switched path
which has already been set up and which corresponds to a path requested in the label request;

when the set-up label switched path exists, allocating another label, for the label request,
which is the same as a label of the set-up label switched path;

when the set-up label switched path does not exist, allocating a new label for the label
request;

when a request to release the ~~other another~~ label is received from a router notified of said
other label, performing processing for allocating a label different from the label of the set-up
label switched path for the label request having a path corresponding to the set-up label switched
path; and

automatically learning a ~~set-up label switched path~~ that cannot be allocated ~~another with a~~
~~same label which is the same as a label for the set-up label switched path~~ and prohibiting
allocation of ~~such another said same~~ label for the learned path, and when a request to release the
~~other said same~~ label has been received, ~~notifying the path and learning the notified learned path~~
as a path that cannot be allocated the ~~said~~ same label.

FUJO 18,191
09/754,802

8. (Currently Amended) A path setup device for setting up a label switched path in a label switching network including a plurality of routers, comprising:

decision means for, when a label request is received, deciding whether there exists ~~a~~the label switched path which has already been set up and which corresponds to a path requested in the label request;

label allocation means for, when the set-up label switched path exists, allocating another label, for the label request, which is the same as a label of the set-up label switched path;

a different-label allocation means for, when a request to release ~~the other~~another label is received from a router notified of said ~~other~~another label, performing processing for allocating a label different from the label of the set-up label switched path for ~~a~~the label request corresponding to a same path; and

a path learning means for automatically learning a path that cannot be allocated ~~a another~~with a same label and prohibiting allocation of ~~other~~said same labels for the learned path, and when a request to release another label has been received, the different-label allocation means notifies the path learning means of the path and the path learning means learns the notified path as a path that cannot be allocated ~~another~~said same label.